

Service Definition: Google Colab Pro & Pro+

1. Service Overview

Google Colab (Colaboratory) is a cloud-hosted Jupyter notebook environment that allows students, researchers, and data scientists to write and execute Python code through their browser. It requires zero configuration, no local software installation, and provides free access to computing resources.

Google Colab Pro and Pro+ are premium subscription tiers designed for users who require higher reliability and performance for complex machine learning and data science workflows. These editions provide priority access to Google's most powerful accelerated hardware (GPUs and TPUs), ensuring that computationally intensive tasks—such as training deep learning models—can be completed faster and more efficiently.

2. Key Features

- **Priority Access to GPUs:** Get priority access to faster GPUs (e.g., NVIDIA T4, V100, and A100) and TPUs for accelerated machine learning training.
- **More Memory:** Access high-RAM runtimes to handle larger datasets that would crash standard environments.
- **Background Execution (Pro+):** Keep notebooks running and executing code even after the browser tab is closed.
- **Longer Runtimes:** Extended session limits (up to 24 hours for Pro+) allow for lengthy training jobs without interruption.
- **Terminal Access:** Full command-line terminal access via the connected VM for advanced system administration and file management.
- **Flexible Compute Units:** Monthly quotas of compute units allow users to choose when to consume premium resources versus standard resources.
- **Drive Integration:** Seamlessly mount Google Drive to save notebooks, import datasets, and export trained models.
- **Zero Configuration:** Instant access to a pre-configured Python environment with popular libraries (TensorFlow, PyTorch, NumPy) pre-installed.

3. Service Benefits

- **Accelerate Research:** Drastically reduce model training times using enterprise-grade accelerators.
- **Cost Efficiency:** Access high-end hardware infrastructure without the capital expenditure of physical servers.
- **Scale Learning:** Provide a consistent, high-power computing environment to every

student, regardless of their local device specs.

- **Seamless Collaboration:** Share code, data, and visualizations instantly via Google Drive standard sharing permissions.
- **Uninterrupted Work:** Run long data processing jobs in the background (Pro+) without keeping your computer on.
- **Easy Oversight:** Centralized license assignment via the Google Admin Console allows for easy provisioning to classes or research groups.

4. Technical Requirements & Compatibility

- **Cloud-Based:** Fully SaaS (Software as a Service).
- **Browser Support:** Optimized for the latest versions of Chrome, Firefox, and Safari.
- **Base Domain:** Requires a Google Workspace for Education domain (Fundamentals, Standard, Plus, or Teaching & Learning Upgrade).
- **Storage:** Notebooks are stored in Google Drive; storage consumption counts towards the institution's pooled storage limit.

5. Security and Governance

Service Classification

Google Colab is classified as an Additional Google Service. While it utilizes the same secure infrastructure as Core Services, it is governed by the Google Terms of Service and Colab Additional Terms. It does not typically fall under the Google Workspace BAA (Business Associate Agreement) or the same educational data privacy amendments as Core Services by default.

Infrastructure Security

- **Encryption:** Data is encrypted in transit between the user's device and Google's data centres using HTTPS/TLS. Notebooks stored in Google Drive are encrypted at rest.
- **Vulnerability Management:** The underlying runtime environment is managed by Google, with automated patching and security updates deployed centrally.
- **Access Control:** Administrators can enable or disable the service for specific Organizational Units (OUs), ensuring only authorized staff or researchers have access.

6. Onboarding and Offboarding

Getting Started

1. **Purchase:** Licenses are procured via the reseller (Getech).
2. **Provisioning:** Administrators assign licenses to specific users via the Google Admin Console.
3. **Access:** Users log in to colab.research.google.com using their institutional credentials.

End of Contract

- **Data Retention:** All user notebooks (.ipynb files) and scripts are stored in the user's Google Drive. These remain safe, accessible, and portable even after the subscription ends.
- **Service Reversion:** Upon contract expiration, licensed users automatically revert to the "Free" tier of Colab. They will lose access to premium GPUs, high-RAM runtimes, and background execution, but their data remains intact.

7. Service Support

Support Model

- **Standard Support:** Included with the license. Covers billing, licensing, and provisioning issues via the Google Admin Console.
- **Enhanced Support (Getech):** As a Google for Education Partner, Getech provides an additional layer of support to assist with deployment strategy, license management, and best practices for integrating Colab into the curriculum.